

Amendments to the Claims:

This listing of the claims replaces all prior versions of the claims in the application:

Listing of claims:

1. (currently amended) A pup joint comprising:

a length of pipe having an outside diameter;

a female sub connected to a first end of the length of pipe, the female sub including a conical sealing surface, an outer surface formed adjacent the conical sealing surface and external threads formed on the outer surface;

51 a male sub connected to the distal end of the length of pipe, the male sub including a section having an outside diameter greater than the outside diameter of the length of pipe, the male sub also including a forward shoulder extending radially outwardly therefrom and a spherical sealing surface adjacent the forward shoulder which is adapted to mate with and seal against the conical sealing surface of another such pup joint;

a nut having an internal surface, internal threads formed on the internal surface and a rearward shoulder extending radially inwardly from the internal surface;

one or more retainer segments positioned between the rearward shoulder of the nut and the forward shoulder of the male sub for restricting axial movement of the nut relative to the male sub in a first direction;

a retainer ring positioned in a corresponding groove formed in the retainer segments and having an outer diameter which is greater than the diameter of the rearward shoulder to thereby maintain the nut positioned around the retainer segments; and

a retention shoulder extending radially outwardly, and that is not removable, from the male sub positioned rearwardly of the forward shoulder, the retention shoulder comprising an outside diameter greater than the inside diameter of the retainer segments;

whereby the retention shoulder restricts axial movement of the nut and the retainer segments relative to the male sub in a direction opposite the first direction.

2. (original) The pup joint of claim 1, wherein the male sub and the female sub are formed integral with the length of pipe.

3. (currently amended) The pup joint of claim 2, wherein the length of pipe, the male sub, and the female sub, and the retention shoulder are constructed of a single forging and the retention shoulder is machined into the male sub.

4. (original) The pup joint of claim 1, wherein the male sub is threaded onto the distal end of the length of pipe, and the female sub is threaded onto the first end of the length of pipe.

5. (currently amended) A pup joint comprising:

a length of pipe having an outside diameter;

a female sub connected to a first end of the length of pipe, the female sub including a conical sealing surface, an outer surface formed adjacent the conical sealing surface and external threads formed on the outer surface;

a male sub connected to the distal end of the length of pipe, the male sub including a forward shoulder extending radially outwardly therefrom and a spherical sealing surface adjacent the forward shoulder which is adapted to mate with and seal against the conical sealing surface of another such pup joint;

a nut having an internal surface, internal threads formed on the internal surface and a rearward shoulder extending radially inwardly from the internal surface;

one or more retainer segments positioned between the rearward shoulder of the nut and the forward shoulder of the male sub for restricting axial movement of the nut relative to the male sub in a first direction, the one or more retainer segments having an inside diameter greater than the outside diameter of the length of pipe;

a retainer ring positioned in a corresponding groove formed in the retainer segments and having an outer diameter which is greater than the diameter of the rearward shoulder to thereby maintain the nut positioned around the retainer segments; and

a retention shoulder extending radially outwardly, and that is not removable, from the male sub rearwardly of the forward shoulder, the retention shoulder comprising an outside diameter greater than the inside diameter of the retainer segments;

whereby the retention shoulder restricts axial movement of the nut and the retainer segments relative to the male sub in a direction opposite the first direction.

6. (original) The pup joint of claim 5, wherein the male sub and the female sub are formed integral with the length of pipe.

7. (currently amended) The pup joint of claim 6, wherein the length of pipe, the male sub, ~~and the female sub~~, and the retention shoulder are constructed of a single forging and the retention shoulder is machined into the male sub.

8. (original) The pup joint of claim 5, wherein the male sub is threaded onto the distal end of the length of pipe, and the female sub is threaded onto the first end of the length of pipe.

9. (currently amended) A pup joint comprising:

a length of pipe having an outside diameter;

a female sub connected to a first end of the length of pipe, the female sub including a conical sealing surface, an outer surface formed adjacent the conical sealing surface and external threads formed on the outer surface;

a male sub connected to the distal end of the length of pipe, the male sub including a section having an outside diameter greater than the outside diameter of the length of pipe, the male sub also including a forward shoulder extending radially outwardly therefrom and a spherical sealing surface adjacent the forward shoulder which is adapted to mate with and seal against the conical sealing surface of another such pup joint;

a nut having an internal surface, internal threads formed on the internal surface and a rearward shoulder extending radially inwardly from the internal surface;

one or more retainer segments positioned between the rearward shoulder of the nut and the forward shoulder of the male sub for restricting axial movement of the nut relative to the male sub in a first direction;

a retainer ring positioned in a corresponding groove formed in the retainer segments and having an outer diameter which is greater than the diameter of the rearward shoulder to thereby maintain the nut positioned around the retainer segments; and

a retention shoulder extending radially outwardly, and that is not removable, from the section of the male sub, the retention shoulder positioned rearwardly of the forward shoulder, the retention shoulder comprising an outside diameter greater than the inside diameter of the retainer segments, the outside diameter of the retention shoulder also being greater than both the outside diameter of the length of pipe and the outside diameter of the section of the male sub;

whereby the retention shoulder restricts axial movement of the nut and the retainer segments relative to the male sub in a direction opposite the first direction.

10. (original) The pup joint of claim 9, wherein the male sub and the female sub are formed integral with the length of pipe.

B 11. (currently amended) The pup joint of claim 10, wherein the length of pipe, the male sub, and the female sub, and the retention shoulder are constructed of a single forging and the retention shoulder is machined into the male sub.

12. (original) The pup joint of claim 9, wherein the male sub is threaded onto the distal end of the length of pipe, and the female sub is threaded onto the first end of the length of pipe.
